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 NEWS  1          Web Page URLs for STN Seminar Schedule - N. America
 NEWS  2          "Ask CAS" for self-help around the clock
 NEWS  3  JAN 27  Source of Registration (SR) information in REGISTRY updated
                  and searchable
 NEWS  4  JAN 27  A new search aid, the Company Name Thesaurus, available in
                  CA/CAplus
 NEWS  5  FEB 05  German (DE) application and patent publication number format
                  changes
 NEWS  6  MAR 03  MEDLINE and LMEDLINE reloaded
 NEWS  7  MAR 03  MEDLINE file segment of TOXCENTER reloaded
 NEWS  8  MAR 03  FRANCEPAT now available on STN
 NEWS  9  MAR 29  Pharmaceutical Substances (PS) now available on STN
 NEWS 10  MAR 29  WPIFV now available on STN
 NEWS 11  MAR 29  No connect hour charges in WPIFV until May 1, 2004
 NEWS 12  MAR 29  New monthly current-awareness alert (SDI) frequency in RAPRA
 NEWS 13  APR 26  PROMT: New display field available
 NEWS 14  APR 26  IFIPAT/IFIUDB/IFICDB: New super search and display field
                  available
 NEWS 15  APR 26  LITALERT now available on STN
 NEWS 16  APR 27  NLDB: New search and display fields available

 NEWS EXPRESS  MARCH 31 CURRENT WINDOWS VERSION IS V7.00A, CURRENT
               MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
               AND CURRENT DISCOVER FILE IS DATED 26 APRIL 2004
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FILE 'HOME' ENTERED AT 15:49:54 ON 30 APR 2004

=> file medline, uspatful, dgene, embase, wpids, fsta, cen, biosis, biobusiness
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.21       0.21
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=> s pyrrhocoricin and deglycosylation
L1            0 PYRRHOCORICIN AND DEGLYCOSYLATION

=> s pyrrhocoricin
L2           86 PYRRHOCORICIN

=> s l2 and Threonine
L3            0 L2 AND THREONINE

=> s threonine and deglycosylation?
L4         2702 THREONINE AND DEGLYCOSYLATION?

=> s l2 and l4
L5            0 L2 AND L4

=> s l2 and mutant
L6            1 L2 AND MUTANT

=> d l6 ti abs ibib tot

L6   ANSWER 1 OF 1  USPATFULL on STN
TI     Surrogate antibodies and methods of preparation and use thereof
AB     A process is described for producing surrogate antibody molecules that
       mimic the structure, stability, and binding characteristics of a natural
       antibody. Surrogate antibody structure, composition of surrogate
       antibody libraries, methods of surrogate antibody preparation, and
       surrogate antibody applications are disclosed. Also disclosed are
       methods of surrogate antibody structural stabilization and resistance to
       nucleases. The surrogate antibodies comprise a specificity strand and a
       stabilization strand. The specificity strand comprises a nucleic acid
       sequence having a specificity region flanked by a first constant region
       and a second constant region. The stabilization strand comprises a first
       stabilization region that interacts with the first constant region and a
       second stabilization region that interacts with the second constant
       region. In further embodiments, the stabilization strand and the
       specificity strand comprise distinct molecules. In other embodiments,
       the surrogate antibody molecules may comprise polyoligonucleotides that
       have at least one nucleotide sequence that forms a loop with specific
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ligand-binding properties. Surrogate antibody libraries containing a large population of random binding molecules are pre-assembled and used in a process that captures and amplifies those molecules having prerequisite binding characteristics. The amplified surrogate antibody molecule produced by the process has identical structure and binding characteristics to the parent molecule captured from the initially assembled library. Surrogate antibody molecules contain binding loop(s) that are formed and stabilized by the hybridization of at least two adjacent and juxtaposed strands, one strand having a greater number of nucleotides than the other. The preparation of a polyclonal surrogate antibody reagent proceeds through phases of capture/enrichment and amplification, specificity enhancement, and affinity enhancement. Depending upon the intended application, polyclonal surrogate antibody reagents can be processed to monoclonality. These molecules expand upon the binding characteristics of natural immunoglobulins, and do not require animals, animal facilities, cell culture or the stimulation of an immune response, in their development. They can be used as an effective replacement for natural antibody molecules, and therefore can be used in testing methods like immunoassay, as therapeutic agents, for specific labeling, and for research purposes. Targets ligands compatible with the development of surrogate antibodies include compounds, organisms, and cells that when complexed to a surrogate antibody in solution attain characteristics that can be physically or chemically differentiated from uncomplexed surrogate antibody.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	2004:24669 USPATFULL
TITLE:	Surrogate antibodies and methods of preparation and use thereof
INVENTOR(S):	Friedman, Stephen B., Chapel Hill, NC, UNITED STATES
PATENT ASSIGNEE(S):	Synthetica Corporation, Durham, NC, UNITED STATES (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2004018508	A1	20040129	
APPLICATION INFO.:	US 2003-370052	A1	20030219	(10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-358459P	20020219 (60)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	ALSTON & BIRD LLP, BANK OF AMERICA PLAZA, 101 SOUTH TRYON STREET, SUITE 4000, CHARLOTTE, NC, 28280-4000
NUMBER OF CLAIMS:	47
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	9 Drawing Page(s)
LINE COUNT:	4783

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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FILE 'MEDLINE, USPATFULL, DGENE, EMBASE, WPIDS, FSTA, CEN, BIOSIS, BIOBUSINESS' ENTERED AT 15:50:27 ON 30 APR 2004

L1	0	S	PYRRHOCORICIN AND DEGLYCOSYLATION
L2	86	S	PYRRHOCORICIN
L3	0	S	L2 AND THREONINE
L4	2702	S	THREONINE AND DEGLYCOSYLATION?
L5	0	S	L2 AND L4
L6	1	S	L2 AND MUTANT

=> s l2 and modification?
L7 7 L2 AND MODIFICATION?

=> d l7 ti abs ibib tot

L7 ANSWER 1 OF 7 MEDLINE on STN
TI Antibacterial peptides isolated from insects.
AB Insects are amazingly resistant to bacterial infections. To combat pathogens, insects rely on cellular and humoral mechanisms, innate immunity being dominant in the latter category. Upon detection of bacteria, a complex genetic cascade is activated, which ultimately results in the synthesis of a battery of antibacterial peptides and their release into the haemolymph. The peptides are usually basic in character and are composed of 20-40 amino acid residues, although some smaller proteins are also included in the antimicrobial repertoire. While the proline-rich peptides and the glycine-rich peptides are predominantly active against Gram-negative strains, the defensins selectively kill Gram-positive bacteria and the cecropins are active against both types. The insect antibacterial peptides are very potent: their IC50 (50% of the bacterial growth inhibition) hovers in the submicromolar or low micromolar range. The majority of the peptides act through disintegrating the bacterial membrane or interfering with membrane assembly, with the exception of drosocin, apidaecin and **pyrrhocoricin** which appear to deactivate a bacterial protein in a stereospecific manner. In accordance with their biological function, the membrane-active peptides form ordered structures, e.g. alpha-helices or beta-pleated sheets and often cast permeable ion-pores. Their cytotoxic properties were exploited in in vivo studies targeting tumour progression. Although the native peptides degrade quickly in biological fluids other than insect haemolymph, structural **modifications** render the peptides resistant against proteases without sacrificing biological activity. Indeed, a **pyrrhocoricin** analogue shows lack of toxicity in vitro and in vivo and protects mice against experimental Escherichia coli infection. Careful selection of lead molecules based on the insect antibacterial peptides may extend their utility and produce viable alternatives to the conventional antimicrobial compounds for mammalian therapy.
ACCESSION NUMBER: 2001306178 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11071264
TITLE: Antibacterial peptides isolated from insects.
AUTHOR: Otvos L Jr
CORPORATE SOURCE: The Wistar Institute, Philadelphia, PA 19104, USA.. otvos@wistar.upenn.edu
CONTRACT NUMBER: GM45011 (NIGMS)
SOURCE: Journal of peptide science : an official publication of the European Peptide Society, (2000 Oct) 6 (10) 497-511. Ref: 125
Journal code: 9506309. ISSN: 1075-2617.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200105
ENTRY DATE: Entered STN: 20010604
Last Updated on STN: 20010604
Entered Medline: 20010531

L7 ANSWER 2 OF 7 USPATFULL on STN
TI Surrogate antibodies and methods of preparation and use thereof
AB A process is described for producing surrogate antibody molecules that mimic the structure, stability, and binding characteristics of a natural antibody. Surrogate antibody structure, composition of surrogate

antibody libraries, methods of surrogate antibody preparation, and surrogate antibody applications are disclosed. Also disclosed are methods of surrogate antibody structural stabilization and resistance to nucleases. The surrogate antibodies comprise a specificity strand and a stabilization strand. The specificity strand comprises a nucleic acid sequence having a specificity region flanked by a first constant region and a second constant region. The stabilization strand comprises a first stabilization region that interacts with the first constant region and a second stabilization region that interacts with the second constant region. In further embodiments, the stabilization strand and the specificity strand comprise distinct molecules. In other embodiments, the surrogate antibody molecules may comprise polyoligonucleotides that have at least one nucleotide sequence that forms a loop with specific ligand-binding properties. Surrogate antibody libraries containing a large population of random binding molecules are pre-assembled and used in a process that captures and amplifies those molecules having prerequisite binding characteristics. The amplified surrogate antibody molecule produced by the process has identical structure and binding characteristics to the parent molecule captured from the initially assembled library. Surrogate antibody molecules contain binding loop(s) that are formed and stabilized by the hybridization of at least two adjacent and juxtaposed strands, one strand having a greater number of nucleotides than the other. The preparation of a polyclonal surrogate antibody reagent proceeds through phases of capture/enrichment and amplification, specificity enhancement, and affinity enhancement. Depending upon the intended application, polyclonal surrogate antibody reagents can be processed to monoclonality. These molecules expand upon the binding characteristics of natural immunoglobulins, and do not require animals, animal facilities, cell culture or the stimulation of an immune response, in their development. They can be used as an effective replacement for natural antibody molecules, and therefore can be used in testing methods like immunoassay, as therapeutic agents, for specific labeling, and for research purposes. Targets ligands compatible with the development of surrogate antibodies include compounds, organisms, and cells that when complexed to a surrogate antibody in solution attain characteristics that can be physically or chemically differentiated from uncomplexed surrogate antibody.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2004:24669 USPATFULL
TITLE: Surrogate antibodies and methods of preparation and use thereof
INVENTOR(S): Friedman, Stephen B., Chapel Hill, NC, UNITED STATES
PATENT ASSIGNEE(S): Syntherica Corporation, Durham, NC, UNITED STATES (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2004018508	A1	20040129	
APPLICATION INFO.:	US 2003-370052	A1	20030219	(10)

	NUMBER	DATE	
PRIORITY INFORMATION:	US 2002-358459P	20020219	(60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: ALSTON & BIRD LLP, BANK OF AMERICA PLAZA, 101 SOUTH TRYON STREET, SUITE 4000, CHARLOTTE, NC, 28280-4000
NUMBER OF CLAIMS: 47
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 9 Drawing Page(s)
LINE COUNT: 4783
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 3 OF 7 USPATFULL on STN
TI Crustacean antimicrobial peptides
AB The invention concerns antimicrobial peptides obtained from penaeid prawns having the following characteristics: a molecular mass of about 5 to 7 kDa; a pHi not less than 9; an N-terminal portion comprising a region (A) of about 15 to 25 amino acids rich in proline; and a C-terminal portion comprising a region (B) of about 20 to 30 amino acids and containing 6 cysteine residues forming three intramolecular disulfide bonds. The invention also concerns the nucleic acid sequences coding for said peptides and enabling their production by genetic engineering.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	2003:291171 USPATFULL			
TITLE:	Crustacean antimicrobial peptides			
INVENTOR(S):	Destoumieux, Delphine, Montpellier, FRANCE Bachere, Evelyne, Clapiers, FRANCE Bulet, Philippe, Vendenheim, FRANCE			
PATENT ASSIGNEE(S):	Institut Francais de Recherche pour l'Exploitation de la Mer, Issy les Moulineaux, FRANCE (non-U.S. corporation) Centre National de la Recherche Scientifique, Paris, FRANCE (non-U.S. corporation)			
	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6642203	B1	20031104	
	WO 9905270		19990204	
APPLICATION INFO.:	US 2000-463125		20000412	(9)
	WO 1998-FR1583		19980720	
	NUMBER		DATE	
PRIORITY INFORMATION:	FR 1997-9214		19970721	
DOCUMENT TYPE:	Utility			
FILE SEGMENT:	GRANTED			
PRIMARY EXAMINER:	Low, Christopher S. F.			
ASSISTANT EXAMINER:	Kam, Chih-Min			
LEGAL REPRESENTATIVE:	Morgan Lewis & Bockius LLP			
NUMBER OF CLAIMS:	9			
EXEMPLARY CLAIM:	1			
NUMBER OF DRAWINGS:	5 Drawing Figure(s); 5 Drawing Page(s)			
LINE COUNT:	850			

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 4 OF 7 USPATFULL on STN
TI Biocidal molecules, macromolecular targets and methods of production and use
AB A method for identifying a compound that has a biocidal effect against a selected organism involves screening from among known or unknown peptide or non-peptide molecules, a test molecule that binds selectively to a target sequence of a multi-helical lid of a heat shock protein of the organism. The binding of the test compound inhibits the protein folding activity of the protein. A specific embodiment of such a method is useful for identifying or designing a pharmaceutical or veterinary biocidal or antibiotic compound, preferably a pathogen and/or strain-specific compound. For this purpose, the compound does not bind to a heat shock protein that is homologous to the mammalian subject to be treated with the compound. Screening methods can encompass direct binding or competitive assays. Molecules or compounds identified by these methods are employed as biocides for pharmaceutical, veterinary, pesticide, insecticide and rodenticide uses, among others.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:159344 USPATFULL
TITLE: Biocidal molecules, macromolecular targets and methods of production and use
INVENTOR(S): Otvos, Laszlo, Audubon, PA, UNITED STATES
Blaszczyk-Thurin, Magdalena, Philadelphia, PA, UNITED STATES
PATENT ASSIGNEE(S): The Wistar Institute of Anatomy and Biology, Philadelphia, PA (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2003108957	A1	20030612	
APPLICATION INFO.:	US 2002-181654	A1	20020719	(10)
	WO 2001-US1812		20010119	

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: HOWSON AND HOWSON, ONE SPRING HOUSE CORPORATION CENTER, BOX 457, 321 NORRISTOWN ROAD, SPRING HOUSE, PA, 19477
NUMBER OF CLAIMS: 62
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 6 Drawing Page(s)
LINE COUNT: 3715
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 5 OF 7 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI Antibacterial peptides isolated from insects.
AB Insects are amazingly resistant to bacterial infections. To combat pathogens, insects rely on cellular and humoral mechanisms, innate immunity being dominant in the latter category. Upon detection of bacteria, a complex genetic cascade is activated, which ultimately results in the synthesis of a battery of antibacterial peptides and their release into the haemolymph. The peptides are usually basic in character and are composed of 20-40 amino acid residues, although some smaller proteins are also included in the antimicrobial repertoire. While the proline-rich peptides and the glycine-rich peptides are predominantly active against Gram-negative strains, the defensins selectively kill Gram-positive bacteria and the cecropins are active against both types. The insect antibacterial peptides are very potent: their IC(50) (50% of the bacterial growth inhibition) hovers in the submicromolar or low micromolar range. The majority of the peptides act through disintegrating the bacterial membrane or interfering with membrane assembly, with the exception of drosocin, apidaecin and **pyrrhocoricin** which appear to deactivate a bacterial protein in a stereospecific manner. In accordance with their biological function, the membrane-active peptides form ordered structures, e.g. α-helices or β-pleated sheets and often cast permeable ion-pores. Their cytotoxic properties were exploited in in vivo studies targeting tumour progression. Although the native peptides degrade quickly in biological fluids other than insect haemolymph, structural **modifications** render the peptides resistant against proteases without sacrificing biological activity. Indeed, a **pyrrhocoricin** analogue shows lack of toxicity in vitro and in vivo and protects mice against experimental Escherichia coli infection. Careful selection of lead molecules based on the insect antibacterial peptides may extend their utility and produce viable alternatives to the conventional antimicrobial compounds for mammalian therapy. Copyright (C) 2000 European Peptide Society and John Wiley and Sons, Ltd.
ACCESSION NUMBER: 2000384019 EMBASE
TITLE: Antibacterial peptides isolated from insects.
AUTHOR: Otvos L. Jr.
CORPORATE SOURCE: L. Otvos Jr., The Wistar Institute, 3601 Spruce Street, Philadelphia, PA 19104, United States.
otvos@wistar.upenn.edu
SOURCE: Journal of Peptide Science, (2000) 6/10 (497-511).

Refs: 125
ISSN: 1075-2617 CODEN: JPSIEI
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 004 Microbiology
030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English

L7 ANSWER 6 OF 7 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI Range of activity and metabolic stability of synthetic antibacterial glycopeptides from insects.
AB Antibacterial glycopeptides isolated from insects are exciting bio-oligomers because they represent a family of compounds in which the structural and functional effects of incorporating short O-linked sugars to protein fragments can be studied. Additionally, their high activity in vitro warrants detailed further drug development efforts. Due to the limited availability of the isolated material, we used synthetic glycopeptides and some analogs to investigate the range of activity of drosocin and **pyrrhocoricin**. While addition of the Gal-GalNAc disaccharide to the natural mid-chain position generally increased the antibacterial activity of drosocin, **pyrrhocoricin** lacking sugar appeared to be more potent, with an IC50 against Escherichia coli D22 of 150 nM. Although glycosylated drosocin was active against E. coli in the low μM range in vitro, this peptide was completely inactive when injected into mice. The lack of in vivo activity of drosocin could be explained by the unusually high degradation rate of the peptides in mammalian sera. The early degradation products were inactive in vitro. In contrast, the peptides were considerably more stable in insect hemolymph, where their natural activity is manifested. Copyright (C) 1999 Elsevier Science B.V.
ACCESSION NUMBER: 1999061561 EMBASE
TITLE: Range of activity and metabolic stability of synthetic antibacterial glycopeptides from insects.
AUTHOR: Hoffmann R.; Bulet P.; Urge L.; Otvos L. Jr.
CORPORATE SOURCE: L. Otvos, The Wistar Institute, 3601 Spruce Street, Philadelphia, PA 19104, United States. otvos@wista.wistar.upenn.edu
SOURCE: Biochimica et Biophysica Acta - General Subjects, (1999) 1426/3 (459-467).
Refs: 26
ISSN: 0304-4165 CODEN: BBGSB3
PUBLISHER IDENT.: S 0304-4165(98)00169-X
COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 030 Pharmacology
037 Drug Literature Index
004 Microbiology
LANGUAGE: English
SUMMARY LANGUAGE: English

L7 ANSWER 7 OF 7 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
TI Composition, used to treat a pathogenic infection and eliminate a plant, insect, or animal pest, comprises a molecule that binds to a heat shock protein.
AN 2001-451911 [48] WPIDS
AB WO 200153509 A UPAB: 20010905
NOVELTY - A novel composition (I) comprises a synthetic non-naturally occurring molecule that binds to a selected multi-helical lid of a heat shock protein (hsp) of a selected organism, where the molecule inhibits the protein folding activity of the hsp, and a carrier, where exposure of the organism to the composition retards the growth and reproduction of the

organism.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) identifying (M1) a biocidal compound effective against a selected non-human organism, comprising screening a test molecule that binds selectively to a target sequence of a multi-helical lid of a hsp of the organism, where binding inhibits the protein folding activity of the protein;

(2) designing (M2) a compound with biocidal effect against a selected organism, comprising modifying or synthesizing a molecule that binds selectively to, and physically restrains the essential movement, of a target sequence of a hsp of the organism, where the compound inhibits the protein folding activity of the protein;

(3) treating (M3) a bacterial infection in a mammal comprising administering a molecule that binds selectively to a target sequence of a bacterial hsp, but does not bind to a homologous mammalian heat shock protein;

(4) preparing (M4) a pharmaceutical or veterinary compound for transport across the cell wall of Gram-negative bacteria, comprising covalently linking the compound to a transport peptide which is **pyrrhocoricin**, apidaecin, or drosocin, or a peptide fragment, analog, or modified peptide derivative of them;

(5) designing (M5) a biocidal composition, comprising:

(a) providing a three dimensional (3D) structure of a hsp of a target non-human organism, where the protein has multiple helices with hinge regions defined by two of the hinge regions;

(b) generating a molecule which specifically binds to at least one of the hinge regions; and

(c) assaying the molecule for its ability to restrict the movement of one or more hinge regions;

(6) an isolated peptide fragment (II) of a hsp for use in a screening assay for a biocidal compound or molecule, with homology to the 3D structure of a selected hsp D-E helix target sequence;

(7) a molecule (III) that penetrates the peptidoglycan layer of a bacterial cell wall, comprising a transport peptide from the **pyrrhocoricin**-apidaecin-drosocin family, or a modified peptide or analog of them, where the transport peptide is covalently linked to another compound with a biological activity in the cell; and

(8) a computer program (IV) which implements M5.

ACTIVITY - Antibacterial; herbicide; pesticide; insecticide; rodenticide; antifungal.

MECHANISM OF ACTION - The composition contains a heat shock protein binding molecule which binds to a pathogenic non-host heat shock protein, preventing its folding or restricting its movement, thus interfering with the pathogen.

Bacteria were used as Bulet, P et al (1996) European Journal of Biochemistry 238: 64-69. Peptides were added to the cultures at 32 micro g/mL 50 micro L cell lysate was added to wells in a 96-well plate. 110 micro L of a 100 mM phosphate buffered saline pH 7.5 containing 1 mM MgSO4/ beta -mercaptoethanol mixture (95:5, vol/vol) was added, the plate covered and incubated for 5 minutes at 37 deg. C. 50 micro L of a 4 mg/mL ortho-nitrophenyl- beta -galactopyranoside substrate mixture was added to each well and incubation continued until the well contents turned bright yellow. The reaction was terminated by adding 90 micro L 1 M Na2CO3. The plate was scanned by a microtiter dish reader set at 405 nm.

Pyrrhocoricin strongly inhibited the beta -galactosidase activity of Escherichia coli strain TG-1 in a peptide concentration dependent manner. Inhibition was detected an hour after introduction of the peptide. Drosocin was not inhibitory after 1 hour but was inhibitory after 6 hours.

USE - (I) is used to treat a mammal for a pathogenic infection, in the manufacture of a medicament for treating a mammal for a pathogenic infection, and to eliminate a plant, insect, or animal pest (all claimed). The pathogen or pest is a plant bacterium, plant mycobacterium, plant

parasite, or, preferably an animal pest species or insect. The animal pest is mammalian, preferably a rodent, and the molecule does not bind to or restrict the essential movement of a primate (claimed). (II) is used in the manufacture of a medicament for treating mammalian bacterial infection (claimed). (III) is used to study a bacterial cell by penetrating the cell wall to produce a detectable effect (claimed). Dwg.0/3

ACCESSION NUMBER: 2001-451911 [48] WPIDS
DOC. NO. CPI: C2001-136574
TITLE: Composition, used to treat a pathogenic infection and eliminate a plant, insect, or animal pest, comprises a molecule that binds to a heat shock protein.
DERWENT CLASS: B04 C06 C07 D16
INVENTOR(S): BLASZCZYK-THURIN, M; LOVAS, S; OTVOS, L; ROGERS, M
PATENT ASSIGNEE(S): (UYCR-N) UNIV CREIGHTON; (WIST-N) WISTAR INST ANATOMY & BIOLOGY
COUNTRY COUNT: 27
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001053509	A2	20010726	(200148)*	EN	123
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR					
W: AU BR CA CN IN JP US					
AU 2001027958	A	20010731	(200171)		
EP 1252517	A2	20021030	(200279)	EN	
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR					
US 2003108957	A1	20030612	(200340)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001053509	A2	WO 2001-US1812	20010119
AU 2001027958	A	AU 2001-27958	20010119
EP 1252517	A2	EP 2001-902126	20010119
		WO 2001-US1812	20010119
US 2003108957	A1	WO 2001-US1812	20010119
		US 2002-181654	20020719

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2001027958	A Based on	WO 2001053509
EP 1252517	A2 Based on	WO 2001053509

PRIORITY APPLN. INFO: US 2000-237599P 20001003; US 2000-177565P 20000121; US 2002-181654 20020719

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(FILE 'HOME' ENTERED AT 15:49:54 ON 30 APR 2004)

FILE 'MEDLINE, USPATFULL, DGENE, EMBASE, WPIDS, FSTA, CEN, BIOSIS, BIOBUSINESS' ENTERED AT 15:50:27 ON 30 APR 2004

L1 0 S PYRRHOCORICIN AND DEGLYCOSYLATION
L2 86 S PYRRHOCORICIN
L3 0 S L2 AND THREONINE
L4 2702 S THREONINE AND DEGLYCOSYLATION?
L5 0 S L2 AND L4
L6 1 S L2 AND MUTANT

L7 7 S L2 AND MODIFICATION?

=> s l2 and branched
L8 1 L2 AND BRANCHED

=> d l8 ti abs ibib tot

L8 ANSWER 1 OF 1 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
TI Polypeptides derived from the peptide **pyrrhocoricin**, useful for treating fungal infections and Gram negative/positive bacterial infections.
AN 2001-112323 [12] WPIDS
AB WO 200078956 A UPAB: 20010302
NOVELTY - Polypeptides derived from the peptide **pyrrhocoricin**, are new. The polypeptides are of the formula (F1) (given below or in the specification). **Pyrrhocoricin** is a glycopeptide characterized by the presence of a disaccharide in the mid-chain position.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) a peptide of formula (F1);

(2) a composition (COMP) comprising polypeptides of formula (F1);

(3) an isolated nucleic acid molecule (NAM) comprising a nucleotide sequence encoding a peptide of formula (F) or the multi-peptide composition (COMP) in operative association with a regulatory sequence directing the expression of it in a host cell;

(4) a host cell transfected or transformed with (NAM);

(5) a method (METH1) of treating a mammalian infection comprising administering a composition comprising a peptide of formula (F1);

(6) a method for designing pharmaceutical compounds, comprising employing a peptide of formula (F1) or composition (COMP) comprising it, in a computer modelling program to design a compound which mimics the structure and/or biological effect of the peptide or composition;

(7) a method (METH2) for identifying compounds comprising:

(a) performing a competitive assay with a microorganism (which is susceptible to a peptide of formula (F1) or a composition (COMP) comprising it), a peptide of formula (F1) or a composition (COMP) comprising it and at least 1 test compound;

(b) identifying one test compound which competitively displaces the binding of the peptide or the composition to a receptor on the microorganism; and

(8) a product identified by (METH2).

R1-Asp-Lys-Gly-X-Y-Leu-Pro-Arg-Pro-Thr-Pro-Pro-Arg-Pro-Ile-Tyr-X'-Y'-R2 (F1)

R1 = a positive charge group;

R2 = a free hydroxyl, an amide, an imide, a sugar and/or a sequence of up to 15 additional amino acids, optionally substituted with a free hydroxyl, an amide, an imide and/or a sugar (the additional amino acids are independently selected from L-configuration or D-configuration and the additional amino acids are capable of cyclizing the peptide by bridging the N- and C-termini of it);

X and Y = form a dipeptide selected from Ser-Tyr, and a dipeptide formed of naturally occurring amino acids or unnatural amino acids (the dipeptide is resistant to cleavage); and

X' and Y' = form a dipeptide selected from Asn-Arg, and a dipeptide formed of naturally occurring amino acids or unnatural amino acids (the dipeptide is resistant to cleavage).

ACTIVITY - Antibacterial; fungicidal.

A peptide comprising the sequence Arg-Pro-Pro-Thr-Pro-Arg-Pro-Leu-Lys-Val- was found to have an IC50 (in micro M) of 80 against Micrococcus luteus and 10 against Agrobacterium tumefaciens.

MECHANISM OF ACTION - Unknown (**pyrrhocoricin** binds to an unknown, stereospecific microbial target molecule).

USE - The **pyrrhocoricin** peptides of formula (F1) are used to treat fungal infections and bacterial infections caused by

Gram-negative and Gram positive bacteria (i.e. (METH1)) (claimed).

ADVANTAGE - The polypeptide (F1) has metabolic stability in mammalian serum (claimed).

The presence of the sugar molecule in the peptide decreases the in vitro activity of the **pyrrhocoricin**.

Dwg.0/3

ACCESSION NUMBER: 2001-112323 [12] WPIDS
DOC. NO. CPI: C2001-033372
TITLE: Polypeptides derived from the peptide **pyrrhocoricin**, useful for treating fungal infections and Gram negative/positive bacterial infections.
DERWENT CLASS: B04 C03 D16
INVENTOR(S): OTVOS, L
PATENT ASSIGNEE(S): (WIST-N) WISTAR INST ANATOMY & BIOLOGY
COUNTRY COUNT: 23
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000078956	A1	20001228	(200112)*	EN	73
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE					
W: AU CA JP US					
AU 2000060528	A	20010109	(200122)		
EP 1194548	A1	20020410	(200232)	EN	
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					
AU 769157	B	20040115	(200409)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000078956	A1	WO 2000-US16989	20000621
AU 2000060528	A	AU 2000-60528	20000621
EP 1194548	A1	EP 2000-946829	20000621
		WO 2000-US16989	20000621
AU 769157	B	AU 2000-60528	20000621

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2000060528	A	Based on	WO 2000078956
EP 1194548	A1	Based on	WO 2000078956
AU 769157	B	Previous Publ.	AU 2000060528
		Based on	WO 2000078956

PRIORITY APPLN. INFO: US 1999-154135P 19990915; US 1999-140606P 19990623

=> s l2 and cyclic
L9 7 L2 AND CYCLIC

=> d l9 ti abs ibib tot

L9 ANSWER 1 OF 7 MEDLINE on STN
TI Insect peptides with improved protease-resistance protect mice against bacterial infection.
AB At a time of the emergence of drug-resistant bacterial strains, the development of antimicrobial compounds with novel mechanisms of action is of considerable interest. Perhaps the most promising among these is a family of antibacterial peptides originally isolated from insects. These were shown to act in a stereospecific manner on an as-yet unidentified

target bacterial protein. One of these peptides, drosocin, is inactive in vivo due to the rapid decomposition in mammalian sera. However, another family member, **pyrrhocoricin**, is significantly more stable, has increased in vitro efficacy against gram-negative bacterial strains, and if administered alone, as we show here, is devoid of in vitro or in vivo toxicity. At low doses, **pyrrhocoricin** protected mice against Escherichia coli infection, but at a higher dose augmented the infection of compromised animals. Analogs of **pyrrhocoricin** were, therefore, synthesized to further improve protease resistance and reduce toxicity. A linear derivative containing unnatural amino acids at both termini showed high potency and lack of toxicity in vivo and an expanded **cyclic** analog displayed broad activity spectrum in vitro. The bioactive conformation of native **pyrrhocoricin** was determined by nuclear magnetic resonance spectroscopy, and similar to drosocin, reverse turns were identified as pharmacologically important elements at the termini, bridged by an extended peptide domain. Knowledge of the primary and secondary structural requirements for in vivo activity of these peptides allows the design of novel antibacterial drug leads.

ACCESSION NUMBER: 2000252390 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10794416
TITLE: Insect peptides with improved protease-resistance protect mice against bacterial infection.
AUTHOR: Otvos L Jr; Bokonyi K; Varga I; Otvos B I; Hoffmann R; Ertl H C; Wade J D; McManus A M; Craik D J; Bulet P
CORPORATE SOURCE: The Wistar Institute, Philadelphia, Pennsylvania 19104, USA.. Otvos@wistar.upenn.edu
CONTRACT NUMBER: GM45011 (NIGMS)
SOURCE: Protein science : a publication of the Protein Society, (2000 Apr) 9 (4) 742-9.
Journal code: 9211750. ISSN: 0961-8368.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200006
ENTRY DATE: Entered STN: 20000622
Last Updated on STN: 20000622
Entered Medline: 20000614

L9 ANSWER 2 OF 7 USPATFULL on STN
TI Surrogate antibodies and methods of preparation and use thereof
AB A process is described for producing surrogate antibody molecules that mimic the structure, stability, and binding characteristics of a natural antibody. Surrogate antibody structure, composition of surrogate antibody libraries, methods of surrogate antibody preparation, and surrogate antibody applications are disclosed. Also disclosed are methods of surrogate antibody structural stabilization and resistance to nucleases. The surrogate antibodies comprise a specificity strand and a stabilization strand. The specificity strand comprises a nucleic acid sequence having a specificity region flanked by a first constant region and a second constant region. The stabilization strand comprises a first stabilization region that interacts with the first constant region and a second stabilization region that interacts with the second constant region. In further embodiments, the stabilization strand and the specificity strand comprise distinct molecules. In other embodiments, the surrogate antibody molecules may comprise polyoligonucleotides that have at least one nucleotide sequence that forms a loop with specific ligand-binding properties. Surrogate antibody libraries containing a large population of random binding molecules are pre-assembled and used in a process that captures and amplifies those molecules having prerequisite binding characteristics. The amplified surrogate antibody molecule produced by the process has identical structure and binding characteristics to the parent molecule captured from the initially assembled library. Surrogate antibody molecules contain binding loop(s)

that are formed and stabilized by the hybridization of at least two adjacent and juxtaposed strands, one strand having a greater number of nucleotides than the other. The preparation of a polyclonal surrogate antibody reagent proceeds through phases of capture/enrichment and amplification, specificity enhancement, and affinity enhancement. Depending upon the intended application, polyclonal surrogate antibody reagents can be processed to monoclonality. These molecules expand upon the binding characteristics of natural immunoglobulins, and do not require animals, animal facilities, cell culture or the stimulation of an immune response, in their development. They can be used as an effective replacement for natural antibody molecules, and therefore can be used in testing methods like immunoassay, as therapeutic agents, for specific labeling, and for research purposes. Targets ligands compatible with the development of surrogate antibodies include compounds, organisms, and cells that when complexed to a surrogate antibody in solution attain characteristics that can be physically or chemically differentiated from uncomplexed surrogate antibody.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	2004:24669 USPATFULL			
TITLE:	Surrogate antibodies and methods of preparation and use thereof			
INVENTOR(S):	Friedman, Stephen B., Chapel Hill, NC, UNITED STATES			
PATENT ASSIGNEE(S):	Synthetica Corporation, Durham, NC, UNITED STATES (U.S. corporation)			
	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2004018508	A1	20040129	
APPLICATION INFO.:	US 2003-370052	A1	20030219	(10)
	NUMBER		DATE	
PRIORITY INFORMATION:	US 2002-358459P		20020219	(60)
DOCUMENT TYPE:	Utility			
FILE SEGMENT:	APPLICATION			
LEGAL REPRESENTATIVE:	ALSTON & BIRD LLP, BANK OF AMERICA PLAZA, 101 SOUTH TRYON STREET, SUITE 4000, CHARLOTTE, NC, 28280-4000			
NUMBER OF CLAIMS:	47			
EXEMPLARY CLAIM:	1			
NUMBER OF DRAWINGS:	9 Drawing Page(s)			
LINE COUNT:	4783			

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 3 OF 7 USPATFULL on STN

TI Biocidal molecules, macromolecular targets and methods of production and use

AB A method for identifying a compound that has a biocidal effect against a selected organism involves screening from among known or unknown peptide or non-peptide molecules, a test molecule that binds selectively to a target sequence of a multi-helical lid of a heat shock protein of the organism. The binding of the test compound inhibits the protein folding activity of the protein. A specific embodiment of such a method is useful for identifying or designing a pharmaceutical or veterinary biocidal or antibiotic compound, preferably a pathogen and/or strain-specific compound. For this purpose, the compound does not bind to a heat shock protein that is homologous to the mammalian subject to be treated with the compound. Screening methods can encompass direct binding or competitive assays. Molecules or compounds identified by these methods are employed as biocides for pharmaceutical, veterinary, pesticide, insecticide and rodenticide uses, among others.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:159344 USPATFULL

TITLE: Biocidal molecules, macromolecular targets and methods of production and use
INVENTOR(S): Otvos, Laszlo, Audubon, PA, UNITED STATES
Blaszczyk-Thurin, Magdalena, Philadelphia, PA, UNITED STATES
PATENT ASSIGNEE(S): The Wistar Institute of Anatomy and Biology, Philadelphia, PA (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2003108957	A1	20030612	
APPLICATION INFO.:	US 2002-181654	A1	20020719	(10)
	WO 2001-US1812		20010119	

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: HOWSON AND HOWSON, ONE SPRING HOUSE CORPORATION CENTER, BOX 457, 321 NORRISTOWN ROAD, SPRING HOUSE, PA, 19477
NUMBER OF CLAIMS: 62
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 6 Drawing Page(s)
LINE COUNT: 3715
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 4 OF 7 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
TI Polypeptides derived from the peptide **pyrrhocoricin**, useful for treating fungal infections and Gram negative/positive bacterial infections -
AN AAY72449 peptide DGENE
AB The present peptide sequence is active **Pyrrhocoricin**-modified Peptide 17. This **cyclic** non-glycosylated peptide is the most active peptide. **Pyrrhocoricin** is a glycopeptide characterised by the presence of a disaccharide in the mid-chain position. The invention relates to **pyrrhocoricin**-derived peptides which have anti-bacterial or anti-fungal activity. These peptides have metabolic stability in mammalian serum. The **pyrrhocoricin**-derived peptides are used in the treatment of bacterial infections caused by Gram positive or Gram negative bacterium and fungal infections of skin, nails, mucus membranes and intestines e.g., candidiasis. These peptides are also useful in anti-bacterial or anti-fungal pharmaceutical compositions, drug development and identification of other antibiotic or anti-fungal compounds.
ACCESSION NUMBER: AAY72449 peptide DGENE
TITLE: Polypeptides derived from the peptide **pyrrhocoricin** , useful for treating fungal infections and Gram negative/positive bacterial infections -
INVENTOR: Otvos L
PATENT ASSIGNEE: (WIST-N)WISTAR INST ANATOMY & BIOLOGY.
PATENT INFO: WO 2000078956 A1 20001228 75p
APPLICATION INFO: WO 2000-US16989 20000621
PRIORITY INFO: US 1999-140606 19990623
US 1999-154135 19990915
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: 2001-112323 [12]
DESCRIPTION: **Pyrrhocoricin**-modified Peptide 17.

L9 ANSWER 5 OF 7 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
TI Polypeptides derived from the peptide **pyrrhocoricin**, useful for treating fungal infections and Gram negative/positive bacterial infections -
AN AAY72448 peptide DGENE
AB The present peptide sequence is inactive **Pyrrhocoricin**-modified Peptide 16. **Pyrrhocoricin** is a glycopeptide characterised by the presence of a disaccharide in the mid-chain position. The invention

relates to **pyrrhocoricin**-derived peptides which have anti-bacterial or anti-fungal activity. These peptides have metabolic stability in mammalian serum. The **pyrrhocoricin**-derived peptides are used in the treatment of bacterial infections caused by Gram positive or Gram negative bacterium and fungal infections of skin, nails, mucus membranes and intestines e.g., candidiasis. These peptides are also useful in anti-bacterial or anti-fungal pharmaceutical compositions, drug development and identification of other antibiotic or anti-fungal compounds.

ACCESSION NUMBER: AAY72448 peptide DGENE
TITLE: Polypeptides derived from the peptide **pyrrhocoricin**, useful for treating fungal infections and Gram negative/positive bacterial infections -
INVENTOR: Otvos L
PATENT ASSIGNEE: (WIST-N)WISTAR INST ANATOMY & BIOLOGY.
PATENT INFO: WO 2000078956 A1 20001228 75p
APPLICATION INFO: WO 2000-US16989 20000621
PRIORITY INFO: US 1999-140606 19990623
US 1999-154135 19990915
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: 2001-112323 [12]
DESCRIPTION: **Pyrrhocoricin**-modified Peptide 16.

L9 ANSWER 6 OF 7 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI Insect peptides with improved protease-resistance protect mice against bacterial infection.
AB At a time of the emergence of drug-resistant bacterial strains, the development of antimicrobial compounds with novel mechanisms of action is of considerable interest. Perhaps the most promising among these is a family of antibacterial peptides originally isolated from insects. These were shown to act in a stereospecific manner on an as-yet unidentified target bacterial protein. One of these peptides, drosocin, is inactive in vivo due to the rapid decomposition in mammalian sera. However, another family member, **pyrrhocoricin**, is significantly more stable, has increased in vitro efficacy against Gram-negative bacterial strains, and if administered alone, as we show here, is devoid of in vitro or in vivo toxicity. At low doses, **pyrrhocoricin** protected mice against Escherichia coli infection, but at a higher dose augmented the infection of compromised animals. Analogs of **pyrrhocoricin** were, therefore, synthesized to further improve protease resistance and reduce toxicity. A linear derivative containing unnatural amino acids at both termini showed high potency and lack of toxicity in vivo and an expanded **cyclic** analog displayed broad activity spectrum in vitro. The bioactive conformation of native **pyrrhocoricin** was determined by nuclear magnetic resonance spectroscopy, and similar to drosocin, reverse turns were identified as pharmacologically important elements at the termini, bridged by an extended peptide domain. Knowledge of the primary and secondary structural requirements for in vivo activity of these peptides allows the design of novel antibacterial drug leads.

ACCESSION NUMBER: 2000145244 EMBASE
TITLE: Insect peptides with improved protease-resistance protect mice against bacterial infection.
AUTHOR: Otvos L. Jr.; Bokonyi K.; Varga I.; Otvos B.I.; Hoffmann R.; Ertl H.C.J.; Wade J.D.; McManus A.M.; Craik D.J.; Bulet P.
CORPORATE SOURCE: L. Otvos Jr., Wistar Institute, 3601 Spruce St., Philadelphia, PA 19104, United States. Otvos@wistar.upenn.edu
SOURCE: Protein Science, (2000) 9/4 (742-749).
Refs: 25
ISSN: 0961-8368 CODEN: PRCIEI
COUNTRY: United States

DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 004 Microbiology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English

L9 ANSWER 7 OF 7 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Insect peptides with improved protease-resistance protect mice against bacterial infection.
AB At a time of the emergence of drug-resistant bacterial strains, the development of antimicrobial compounds with novel mechanisms of action is of considerable interest. Perhaps the most promising among these is a family of antibacterial peptides originally isolated from insects. These were shown to act in a stereospecific manner on an as-yet unidentified target bacterial protein. One of these peptides, drosocin, is inactive in vivo due to the rapid decomposition in mammalian sera. However, another family member, **pyrrhocoricin**, is significantly more stable, has increased in vitro efficacy against Gram-negative bacterial strains, and if administered alone, as we show here, is devoid of in vitro or in vivo toxicity. At low doses, **pyrrhocoricin** protected mice against Escherichia coli infection, but at a higher dose augmented the infection of compromised animals. Analogs of **pyrrhocoricin** were, therefore, synthesized to further improve protease resistance and reduce toxicity. A linear derivative containing unnatural amino acids at both termini showed high potency and lack of toxicity in vivo and an expanded **cyclic** analog displayed broad activity spectrum in vitro. The bioactive conformation of native **pyrrhocoricin** was determined by nuclear magnetic resonance spectroscopy, and similar to drosocin, reverse turns were identified as pharmacologically important elements at the termini, bridged by an extended peptide domain. Knowledge of the primary and secondary structural requirements for in vivo activity of these peptides allows the design of novel antibacterial drug leads.
ACCESSION NUMBER: 2000:248451 BIOSIS
DOCUMENT NUMBER: PREV200000248451
TITLE: Insect peptides with improved protease-resistance protect mice against bacterial infection.
AUTHOR(S): Otvos, Laszlo, Jr. [Reprint author]; Bokonyi, Krisztina; Varga, Istvan; Otvos, Balint I.; Hoffmann, Ralf; Ertl, Hildegund C.J.; Wade, John D.; McManus, Ailsa M.; Craik, David J.; Bulet, Philippe
CORPORATE SOURCE: The Wistar Institute, 3601 Spruce St., Philadelphia, PA, 19104, USA
SOURCE: Protein Science, (April, 2000) Vol. 9, No. 4, pp. 742-749. print.
ISSN: 0961-8368.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 14 Jun 2000
Last Updated on STN: 5 Jan 2002

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E1 6 OTVOS PAPP E/AU
E2 1 OTVOS PAPP ELISABETH/AU
E3 0 --> OTVOS, L/AU
E4 1 OTVOZ LASZLO JR/AU
E5 1 OTWAL WALEED/AU
E6 3 OTWAY C/AU
E7 1 OTWAY CLIFFORD G/AU
E8 1 OTWAY D/AU
E9 5 OTWAY D J/AU
E10 2 OTWAY DAVE/AU
E11 1 OTWAY DAVID JOHN/AU
E12 1 OTWAY E W/AU

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L10             1 "OTVOZ LASZLO JR"/AU

=> d l10 ti abs ibib tot

L10  ANSWER 1 OF 1  BIOSIS  COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI   T cell differentiation in complementary models of murine experimental
     autoimmune meningitis.
ACCESSION NUMBER:    2001:44505  BIOSIS
DOCUMENT NUMBER:     PREV200100044505
TITLE:               T cell differentiation in complementary models of murine
                     experimental autoimmune meningitis.
AUTHOR(S):           Perrin, Peter J. [Reprint author]; Phillips, S. Michael
                     [Reprint author]; Beswick, Richard L. [Reprint author];
                     Rumbley, Catherine A. [Reprint author]; Clark, Lise;
                     Otvoz, Laszlo, Jr.; Heber-Katz, Ellen
CORPORATE SOURCE:    University of Pennsylvania Medical School, Philadelphia,
                     PA, USA
SOURCE:              FASEB Journal, (April 20, 2000) Vol. 14, No. 6, pp. A997.
                     print.
                     Meeting Info.: Joint Annual Meeting of the American
                     Association of Immunologists and the Clinical Immunology
                     Society. Seattle, Washington, USA. May 12-16, 2000.
                     CODEN: FAJOEC. ISSN: 0892-6638.
DOCUMENT TYPE:       Conference; (Meeting)
                     Conference; Abstract; (Meeting Abstract)
LANGUAGE:            English
ENTRY DATE:          Entered STN: 17 Jan 2001
                     Last Updated on STN: 12 Feb 2002


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     (FILE 'HOME' ENTERED AT 15:49:54 ON 30 APR 2004)

     FILE 'MEDLINE, USPATFULL, DGENE, EMBASE, WPIDS, FSTA, CEN, BIOSIS,
     BIOBUSINESS' ENTERED AT 15:50:27 ON 30 APR 2004
L1             0 S PYRRHOCORICIN AND DEGLYCOSYLATION
L2            86 S PYRRHOCORICIN
L3             0 S L2 AND THREONINE
L4          2702 S THREONINE AND DEGLYCOSYLATION?
L5             0 S L2 AND L4
L6             1 S L2 AND MUTANT
L7             7 S L2 AND MODIFICATION?
L8             1 S L2 AND BRANCHED
L9             7 S L2 AND CYCLIC
               E OTVOS, L/AU
L10            1 S E4

=> s l2 and alkyl group
L11            0 L2 AND ALKYL GROUP

=> s l2 and reporter group
L12            0 L2 AND REPORTER GROUP

=> s l2 and hydroxyl
L13            3 L2 AND HYDROXYL

=> d l13 ti abs ibib tot

L13  ANSWER 1 OF 3  USPATFULL on STN
TI     Surrogate antibodies and methods of preparation and use thereof
AB     A process is described for producing surrogate antibody molecules that
```

mimic the structure, stability, and binding characteristics of a natural antibody. Surrogate antibody structure, composition of surrogate antibody libraries, methods of surrogate antibody preparation, and surrogate antibody applications are disclosed. Also disclosed are methods of surrogate antibody structural stabilization and resistance to nucleases. The surrogate antibodies comprise a specificity strand and a stabilization strand. The specificity strand comprises a nucleic acid sequence having a specificity region flanked by a first constant region and a second constant region. The stabilization strand comprises a first stabilization region that interacts with the first constant region and a second stabilization region that interacts with the second constant region. In further embodiments, the stabilization strand and the specificity strand comprise distinct molecules. In other embodiments, the surrogate antibody molecules may comprise polyoligonucleotides that have at least one nucleotide sequence that forms a loop with specific ligand-binding properties. Surrogate antibody libraries containing a large population of random binding molecules are pre-assembled and used in a process that captures and amplifies those molecules having prerequisite binding characteristics. The amplified surrogate antibody molecule produced by the process has identical structure and binding characteristics to the parent molecule captured from the initially assembled library. Surrogate antibody molecules contain binding loop(s) that are formed and stabilized by the hybridization of at least two adjacent and juxtaposed strands, one strand having a greater number of nucleotides than the other. The preparation of a polyclonal surrogate antibody reagent proceeds through phases of capture/enrichment and amplification, specificity enhancement, and affinity enhancement. Depending upon the intended application, polyclonal surrogate antibody reagents can be processed to monoclonality. These molecules expand upon the binding characteristics of natural immunoglobulins, and do not require animals, animal facilities, cell culture or the stimulation of an immune response, in their development. They can be used as an effective replacement for natural antibody molecules, and therefore can be used in testing methods like immunoassay, as therapeutic agents, for specific labeling, and for research purposes. Targets ligands compatible with the development of surrogate antibodies include compounds, organisms, and cells that when complexed to a surrogate antibody in solution attain characteristics that can be physically or chemically differentiated from uncomplexed surrogate antibody.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	2004:24669 USPATFULL
TITLE:	Surrogate antibodies and methods of preparation and use thereof
INVENTOR(S):	Friedman, Stephen B., Chapel Hill, NC, UNITED STATES
PATENT ASSIGNEE(S):	Syntherica Corporation, Durham, NC, UNITED STATES (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2004018508	A1	20040129	
APPLICATION INFO.:	US 2003-370052	A1	20030219	(10)

	NUMBER	DATE	
PRIORITY INFORMATION:	US 2002-358459P	20020219	(60)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	ALSTON & BIRD LLP, BANK OF AMERICA PLAZA, 101 SOUTH TRYON STREET, SUITE 4000, CHARLOTTE, NC, 28280-4000
NUMBER OF CLAIMS:	47
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	9 Drawing Page(s)
LINE COUNT:	4783

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 2 OF 3 USPATFULL on STN

TI Biocidal molecules, macromolecular targets and methods of production and use

AB A method for identifying a compound that has a biocidal effect against a selected organism involves screening from among known or unknown peptide or non-peptide molecules, a test molecule that binds selectively to a target sequence of a multi-helical lid of a heat shock protein of the organism. The binding of the test compound inhibits the protein folding activity of the protein. A specific embodiment of such a method is useful for identifying or designing a pharmaceutical or veterinary biocidal or antibiotic compound, preferably a pathogen and/or strain-specific compound. For this purpose, the compound does not bind to a heat shock protein that is homologous to the mammalian subject to be treated with the compound. Screening methods can encompass direct binding or competitive assays. Molecules or compounds identified by these methods are employed as biocides for pharmaceutical, veterinary, pesticide, insecticide and rodenticide uses, among others.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:159344 USPATFULL

TITLE: Biocidal molecules, macromolecular targets and methods of production and use

INVENTOR(S): Otvos, Laszlo, Audubon, PA, UNITED STATES
Blaszczyk-Thurin, Magdalena, Philadelphia, PA, UNITED STATES

PATENT ASSIGNEE(S): The Wistar Institute of Anatomy and Biology, Philadelphia, PA (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2003108957	A1	20030612	
APPLICATION INFO.:	US 2002-181654	A1	20020719	(10)
	WO 2001-US1812		20010119	

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: HOWSON AND HOWSON, ONE SPRING HOUSE CORPORATION CENTER, BOX 457, 321 NORRISTOWN ROAD, SPRING HOUSE, PA, 19477
NUMBER OF CLAIMS: 62
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 6 Drawing Page(s)
LINE COUNT: 3715

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 3 OF 3 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN

TI Polypeptides derived from the peptide **pyrrhocoricin**, useful for treating fungal infections and Gram negative/positive bacterial infections.

AN 2001-112323 [12] WPIDS

AB WO 200078956 A UPAB: 20010302

NOVELTY - Polypeptides derived from the peptide **pyrrhocoricin**, are new. The polypeptides are of the formula (F1) (given below or in the specification). **Pyrrhocoricin** is a glycopeptide characterized by the presence of a disaccharide in the mid-chain position.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) a peptide of formula (F1);

(2) a composition (COMP) comprising polypeptides of formula (F1);

(3) an isolated nucleic acid molecule (NAM) comprising a nucleotide sequence encoding a peptide of formula (F) or the multi-peptide composition (COMP) in operative association with a regulatory sequence directing the expression of it in a host cell;

(4) a host cell transfected or transformed with (NAM);

(5) a method (METH1) of treating a mammalian infection comprising administering a composition comprising a peptide of formula (F1);

(6) a method for designing pharmaceutical compounds, comprising employing a peptide of formula (F1) or composition (COMP) comprising it, in a computer modelling program to design a compound which mimics the structure and/or biological effect of the peptide or composition;

(7) a method (METH2) for identifying compounds comprising:

(a) performing a competitive assay with a microorganism (which is susceptible to a peptide of formula (F1) or a composition (COMP) comprising it), a peptide of formula (F1) or a composition (COMP) comprising it and at least 1 test compound;

(b) identifying one test compound which competitively displaces the binding of the peptide or the composition to a receptor on the microorganism; and

(8) a product identified by (METH2).

R1-Asp-Lys-Gly-X-Y-Leu-Pro-Arg-Pro-Thr-Pro-Pro-Arg-Pro-Ile-Tyr-X'-Y'-R2 (F1)

R1 = a positive charge group;

R2 = a free **hydroxyl**, an amide, an imide, a sugar and/or a sequence of up to 15 additional amino acids, optionally substituted with a free **hydroxyl**, an amide, an imide and/or a sugar (the additional amino acids are independently selected from L-configuration or D-configuration and the additional amino acids are capable of cyclizing the peptide by bridging the N- and C-termini of it);

X and Y = form a dipeptide selected from Ser-Tyr, and a dipeptide formed of naturally occurring amino acids or unnatural amino acids (the dipeptide is resistant to cleavage); and

X' and Y' = form a dipeptide selected from Asn-Arg, and a dipeptide formed of naturally occurring amino acids or unnatural amino acids (the dipeptide is resistant to cleavage).

ACTIVITY - Antibacterial; fungicidal.

A peptide comprising the sequence Arg-Pro-Pro-Thr-Pro-Arg-Pro-Leu-Lys-Val- was found to have an IC50 (in micro M) of 80 against Micrococcus luteus and 10 against Agrobacterium tumefaciens.

MECHANISM OF ACTION - Unknown (**pyrrhocoricin** binds to an unknown, stereospecific microbial target molecule).

USE - The **pyrrhocoricin** peptides of formula (F1) are used to treat fungal infections and bacterial infections caused by Gram-negative and Gram positive bacteria (i.e. (METH1)) (claimed).

ADVANTAGE - The polypeptide (F1) has metabolic stability in mammalian serum (claimed).

The presence of the sugar molecule in the peptide decreases the in vitro activity of the **pyrrhocoricin**.

Dwg.0/3

ACCESSION NUMBER: 2001-112323 [12] WPIDS
DOC. NO. CPI: C2001-033372
TITLE: Polypeptides derived from the peptide **pyrrhocoricin**, useful for treating fungal infections and Gram negative/positive bacterial infections.
DERWENT CLASS: B04 C03 D16
INVENTOR(S): OTVOS, L
PATENT ASSIGNEE(S): (WIST-N) WISTAR INST ANATOMY & BIOLOGY
COUNTRY COUNT: 23
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000078956	A1	20001228	(200112)*	EN	73
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE					
W: AU CA JP US					
AU 2000060528	A	20010109	(200122)		
EP 1194548	A1	20020410	(200232)	EN	
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					

AU 769157 B 20040115 (200409)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000078956	A1	WO 2000-US16989	20000621
AU 2000060528	A	AU 2000-60528	20000621
EP 1194548	A1	EP 2000-946829	20000621
		WO 2000-US16989	20000621
AU 769157	B	AU 2000-60528	20000621

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2000060528	A	Based on	WO 2000078956
EP 1194548	A1	Based on	WO 2000078956
AU 769157	B	Previous Publ.	AU 2000060528
		Based on	WO 2000078956

PRIORITY APPLN. INFO: US 1999-154135P 19990915; US 1999-140606P 19990623

=> s l2 and dipeptide
L14 2 L2 AND DIPEPTIDE

=> d l14 ti abs ibib tot

L14 ANSWER 1 OF 2 USPATFULL on STN
TI Biocidal molecules, macromolecular targets and methods of production and use
AB A method for identifying a compound that has a biocidal effect against a selected organism involves screening from among known or unknown peptide or non-peptide molecules, a test molecule that binds selectively to a target sequence of a multi-helical lid of a heat shock protein of the organism. The binding of the test compound inhibits the protein folding activity of the protein. A specific embodiment of such a method is useful for identifying or designing a pharmaceutical or veterinary biocidal or antibiotic compound, preferably a pathogen and/or strain-specific compound. For this purpose, the compound does not bind to a heat shock protein that is homologous to the mammalian subject to be treated with the compound. Screening methods can encompass direct binding or competitive assays. Molecules or compounds identified by these methods are employed as biocides for pharmaceutical, veterinary, pesticide, insecticide and rodenticide uses, among others.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2003:159344 USPATFULL
TITLE: Biocidal molecules, macromolecular targets and methods of production and use
INVENTOR(S): Otvos, Laszlo, Audubon, PA, UNITED STATES
Blaszczyk-Thurin, Magdalena, Philadelphia, PA, UNITED STATES
PATENT ASSIGNEE(S): The Wistar Institute of Anatomy and Biology, Philadelphia, PA (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2003108957	A1	20030612	
APPLICATION INFO.:	US 2002-181654	A1	20020719	(10)
	WO 2001-US1812		20010119	

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: HOWSON AND HOWSON, ONE SPRING HOUSE CORPORATION CENTER, BOX 457, 321 NORRISTOWN ROAD, SPRING HOUSE, PA, 19477
NUMBER OF CLAIMS: 62
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 6 Drawing Page(s)
LINE COUNT: 3715
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 2 OF 2 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
TI Polypeptides derived from the peptide **pyrrhocoricin**, useful for treating fungal infections and Gram negative/positive bacterial infections.
AN 2001-112323 [12] WPIDS
AB WO 200078956 A UPAB: 20010302
NOVELTY - Polypeptides derived from the peptide **pyrrhocoricin**, are new. The polypeptides are of the formula (F1) (given below or in the specification). **Pyrrhocoricin** is a glycopeptide characterized by the presence of a disaccharide in the mid-chain position.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) a peptide of formula (F1);

(2) a composition (COMP) comprising polypeptides of formula (F1);

(3) an isolated nucleic acid molecule (NAM) comprising a nucleotide sequence encoding a peptide of formula (F) or the multi-peptide composition (COMP) in operative association with a regulatory sequence directing the expression of it in a host cell;

(4) a host cell transfected or transformed with (NAM);

(5) a method (METH1) of treating a mammalian infection comprising administering a composition comprising a peptide of formula (F1);

(6) a method for designing pharmaceutical compounds, comprising employing a peptide of formula (F1) or composition (COMP) comprising it, in a computer modelling program to design a compound which mimics the structure and/or biological effect of the peptide or composition;

(7) a method (METH2) for identifying compounds comprising:

(a) performing a competitive assay with a microorganism (which is susceptible to a peptide of formula (F1) or a composition (COMP) comprising it), a peptide of formula (F1) or a composition (COMP) comprising it and at least 1 test compound;

(b) identifying one test compound which competitively displaces the binding of the peptide or the composition to a receptor on the microorganism; and

(8) a product identified by (METH2).

R1-Asp-Lys-Gly-X-Y-Leu-Pro-Arg-Pro-Thr-Pro-Pro-Arg-Pro-Ile-Tyr-X'-Y'-R2 (F1)

R1 = a positive charge group;

R2 = a free hydroxyl, an amide, an imide, a sugar and/or a sequence of up to 15 additional amino acids, optionally substituted with a free hydroxyl, an amide, an imide and/or a sugar (the additional amino acids are independently selected from L-configuration or D-configuration and the additional amino acids are capable of cyclizing the peptide by bridging the N- and C-termini of it);

X and Y = form a **dipeptide** selected from Ser-Tyr, and a **dipeptide** formed of naturally occurring amino acids or unnatural amino acids (the **dipeptide** is resistant to cleavage); and

X' and Y' = form a **dipeptide** selected from Asn-Arg, and a **dipeptide** formed of naturally occurring amino acids or unnatural amino acids (the **dipeptide** is resistant to cleavage).

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FILING DETAILS:

PATENT NO	KIND		PATENT NO
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EP 1194548	A1	Based on	WO 2000078956
AU 769157	B	Previous Publ.	AU 2000060528
		Based on	WO 2000078956

PRIORITY APPLN. INFO: US 1999-154135P 19990915; US 1999-140606P 19990623